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13 UNITED STATES DISTRICT COURT
14
15 NORTHERN DISTRICT OF CALIFORNIA
16
17 SAN FRANCISCO DIVISION

18 SONOS, INC.,

19 Plaintiff and Counter-
Defendant,

20 vs.

21 GOOGLE LLC,

22 Defendant and Counter-
23 Claimant.

Case No. 3:20-cv-06754-WHA
Consolidated with Case No. 3:21-cv-07559-
WHA

**GOOGLE LLC'S BRIEF ON
AFFIRMATIVE DEFENSES**

Location: Courtroom 12, 19th Floor
Judge: Hon. William Alsup

TABLE OF CONTENTS**Page**

I.	GOOGLE IS ENTITLED TO JUDGMENT IN ITS FAVOR ON ITS AFFIRMATIVE DEFENSES OF PROSECUTION LACHES	1
A.	The Doctrine of Prosecution Laches	2
B.	Sonos's Delay in Prosecution of the '885 and '996 Patents was Unreasonable and Inexcusable Under the Totality of the Circumstances.....	4
1.	Sonos Delays Filing Claims Directed to Overlapping Speaker Groups and Google Introduces its Multiroom Audio Products.....	4
2.	Sonos Delayed Prosecution of the Invention	7
3.	Sonos Belatedly Claims "Overlapping Speaker Groups" And Expedites Prosecution of Those 2019 Applications.....	7
C.	Sonos's Patents are Unenforceable Under Prosecution Laches	8
D.	Google Suffered Prejudice Attributable to Sonos's Delay.....	11
II.	GOOGLE IS ENTITLED TO JUDGMENT IN ITS FAVOR ON ITS EQUITABLE ESTOPPEL AFFIRMATIVE DEFENSE	12
A.	Google Disclosed Its Development of Multi-Zone Technology to Sonos in 2014.....	13
B.	Google Developed Its Own Products Beginning in 2015	19
C.	Sonos Waited Until 2020 to Notify Google of the Existence of the Asserted Patents and Google's Alleged Infringement of Them.....	19
D.	Sonos's Conduct and Silence Was Misleading and Amounts to Bad Faith.....	19
E.	Google Relied on Sonos's Conduct to Reasonably Infer That Sonos Did Not Intend to Enforce Any Patent Rights in Overlapping Zone Scenes Against Google.	20
F.	Google Faces Prejudice If the Infringement Verdict Is Permitted to Stand.....	21
III.	CONCLUSION	21

TABLE OF AUTHORITIES**Page****Cases****Cases**

<i>ABB Robotics, Inc. v. GMFanuc Robotics Corp.</i> , 52 F.3d 1062 (Fed. Cir. 1995).....	12, 13, 21
<i>In re Bogese</i> , 303 F.3d 1362 (Fed. Cir. 2002).....	10, 11
<i>Cancer Research Tech. Ltd. v. Barr Labs., Inc.</i> , 625 F.3d 724 (Fed. Cir. 2010).....	2, 11, 12
<i>Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., Ltd.</i> , 535 U.S. 722 (2002)	11
<i>Hyatt v. Hirshfeld</i> , 998 F.3d 1347 (Fed. Cir. 2021).....	2, 3, 5, 6, 8, 11
<i>Intuitive Surgical, Inc. v. Computer Motion, Inc.</i> , 2002 WL 31833867 (D. Del. 2002)	2
<i>Personalized Media Commc 'ns, LLC v. Apple Inc.</i> , 57 F.4th 1346 (Fed. Cir. 2023).....	2
<i>Regents of University of Cal. v. Monsanto Co.</i> , 2005 WL 3454107 (N.D. Cal. 2005).....	2
<i>Reiffin v. Microsoft Corp.</i> , 270 F. Supp. 2d 1132 (N.D. Cal. 2003)	2, 3, 4, 8, 9
<i>Symbol Technologies, Inc. v. Lemelson Med., Educ. & Research Foundation, LP</i> ("Symbol II"), 301 F. Supp. 2d 1147 (D. Nev. 2004), <i>aff'd</i> 422 F.3d 1378 (Fed. Cir. 2005).....	9
<i>Symbol Techs., Inc. v. Lemelson Med., Educ. & Research Found., LP</i> , 422 F.3d 1378 (Fed. Cir. 2005).....	3, 10
<i>Wang Labs., Inc. v. Mitsubishi Elects. Amer.</i> , 103 F.3d 1571 (Fed. Cir. 1997).....	20
<i>Webster Elec. Co. v. Splitdorf Elec. Co.</i> , 264 U.S. 463 (1924)	5

1	<i>Woodbridge v. United States,</i>	
2	263 U.S. 50 (1923)	5
3	<i>Woodbridge v. United States,</i>	
4	263 U.S. 52 (1923)	3, 5

Statutes

6	35 U.S.C. § 112	6
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Other Authorities

8	U.S. Const., Art. I, § 8, cl. 8	11
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Google submits this brief in response to the Court's request for information regarding Google's "affirmative defenses that remain to be decided." Dkt. 796 at 1. As set forth below, Google is entitled to judgment in its favor on its affirmative defenses of prosecution laches and equitable estoppel. Sonos should not be allowed to assert patents that it filed well after Google and others had already introduced the accused technology into the market. Indeed, Google disclosed the idea of overlapping speaker groups to Sonos in 2014, yet Sonos did not even attempt to file a patent to cover that functionality until 2019. Critically, as explained in Google's numerous trial briefs on the issue of written description, Sonos did not disclose the concept of overlapping zone scenes anywhere in its alleged priority chain of provisional and non-provisional patent applications. And Sonos did not even file the '885 and '966 patent applications until years after Google released the accused products. Accordingly, Google proceeded to release and sell millions of speaker products that Sonos now seizes on to seek tens of millions of dollars in damages. Sonos's delay in prosecuting its alleged inventions was to Google's prejudice and, as explained in further detail below, should be barred under the doctrine of prosecution laches. Similarly, Sonos's tactical silence and delay regarding its claimed invention on overlapping speaker groups bars its enforcement of those patents under the doctrine of equitable estoppel.

I. GOOGLE IS ENTITLED TO JUDGMENT IN ITS FAVOR ON ITS AFFIRMATIVE DEFENSE OF PROSECUTION LACHES

The course of conduct undertaken by Sonos constitutes an unreasonable delay and an abuse of the statutory patent system. Based on the facts presented at trial, Google respectfully requests that the Court apply the equitable doctrine of prosecution laches and find the asserted patents unenforceable against Google and thereby overturn the jury's verdict awarding damages for infringement of the '885 patent. Google has presented evidence of prosecution laches by preponderance of the evidence and the Court should, therefore, find that the '885 and '996 patents are unenforceable.

1 **A. The Doctrine of Prosecution Laches**

2 The doctrine of prosecution laches is an equitable affirmative defense to patent
3 infringement. *Hyatt v. Hirshfeld*, 998 F.3d 1347, 1359 (Fed. Cir. 2021) (citing *Cancer Research*
4 *Tech. Ltd. v. Barr Labs., Inc.*, 625 F.3d 724, 728 (Fed. Cir. 2010)). Prosecution laches “render[s] a
5 patent unenforceable when it has issued only after an unreasonable and unexplained delay in
6 prosecution that constitutes an egregious misuse of the statutory patent system under a totality of
7 the circumstances.” *Hyatt*, 998 F.3d at 1360 (quoting *Cancer Research*, 625 F.3d at 728).
8

9 The Federal Circuit explained that “the doctrine of prosecution laches places an additional,
10 equitable restriction on patent prosecution conduct beyond those imposed by statute or PTO
11 regulation.” *Hyatt*, 998 F.3d at 1366. “An applicant must therefore not only comply with the
12 statutory requirements and PTO regulations but must also prosecute its applications in an
13 equitable way that avoids unreasonable, unexplained delay that prejudices others.” *Id.*
14

15 When raised as an affirmative defense, prosecution laches requires proof of two elements:
16 “(a) that the patentee’s delay in prosecution was unreasonable and inexcusable under the totality of
17 circumstances, and (b) that the accused infringer suffered prejudice attributable to the delay.” *Hyatt*,
18 998 F.3d at 1362 (citing *Cancer Research*, 625 F.3d at 728-29); *Personalized Media Commc’ns*,
19 *LLC v. Apple Inc.*, 57 F.4th 1346, 1354 (Fed. Cir. 2023). The defendant bears the burden of proving
20 prosecution laches by a preponderance of the evidence. *Reiffin v. Microsoft Corp.*, 270 F. Supp. 2d
21 1132, 1156 (N.D. Cal. 2003); *Regents of University of Cal. v. Monsanto Co.*, 2005 WL 3454107
22 (N.D. Cal. 2005); *Intuitive Surgical, Inc. v. Computer Motion, Inc.*, 2002 WL 31833867 (D. Del.
23 2002)). To establish prejudice, an accused infringer must show evidence of intervening rights, in
24 the sense that “either the accused infringer or others invested in, worked on, or used the claimed
25 technology during the period of delay.” *Cancer Research*, 625 F.3d at 731.
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1 “Whether an applicant’s delay is unreasonable depends on the specific
 2 circumstances.” *Hyatt*, 998 F.3d at 1366. “[T]he determination of unreasonable delay is not limited
 3 to the circumstances surrounding the particular application at issue; instead, ‘an examination of the
 4 totality of the circumstances, including the prosecution history of all of a series of related patents
 5 and overall delay in issuing claims, may trigger laches.’” *Hyatt*, 998 F.3d at 1362 (quoting *Symbol*
 6 *Techs., Inc. v. Lemelson Med., Educ. & Research Found., LP*, 422 F.3d 1378, 1385-86 (Fed. Cir.
 7 2005) (“*Symbol II*”).

8
 9 Although the standard requires an “unexplained” or “inexcusable” delay, the court in *Reiffin*
 10 noted that “[e]ven the most unreasonable conduct in the prosecution of a patent can be explained in
 11 some fashion,” and therefore the key issue is the *reasonableness* of the applicant’s delay. *Id.* at
 12 1153. The *Reiffin* court noted that “*Woodbridge* offer[ed] the quintessential example of an
 13 explanation that fails the test of reasonableness,” because there the applicant could not explain his
 14 10-year delay in prosecution other than to note that “only lately . . . any immediate opportunity of
 15 rendering it *pecuniarily* available has occurred.” *Woodbridge v. United States*, 263 U.S. 52 (1923)
 16 (emphasis added).^[OB] In other words, the applicant’s sole reason for delay was that it would be
 17 *commercially* beneficial to delay prosecution of a patent for 10 years. As *Woodbridge* held, and
 18 *Reiffin* agreed, those types of financial considerations do not render a decision to delay prosecution
 19 *legally* reasonable. An inventor “may forfeit his rights as an inventor by a wilful or negligent
 20 postponement of his claims, or by an attempt to withhold the benefit of his improvement from the
 21 public until a similar or the same improvement should have been made and introduced by
 22 others.” *Id.* at 57. “The applicant’s pecuniary interest in the patent cannot by itself make an
 23 otherwise unexplained delay in prosecution reasonable.” *Reiffin*, 270 F. Supp. 2d 1132 at
 24 1153. Accordingly, “prosecution laches prevents patent applicants from unduly postponing the time
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1 when the public can enjoy the free use of the invention by strategically delaying the issuance of the
2 patent to their own commercial advantage.” *Id.* at 1154 (cleaned up).

3 The *Reiffin* court found the following factors relevant to consider when analyzing whether
4 the delay was caused by legitimate considerations and/or expectations of a reasonable patent
5 applicant: “(1) the prosecution history of plaintiffs patents was typical of patents in that field or
6 patents generally; (2) any unexplained gaps exist in the prosecution history; (3) plaintiff took any
7 unusual steps to speed or delay the application process; (4) the PTO or other reviewing body took
8 any unusual steps to speed or delay the application process; (5) plaintiff took any steps to limit
9 public awareness of his pending applications or the inventions he sought to patent over the course
10 of the prosecution; (6) any changes in plaintiffs prosecution of the application coincide with or
11 directly follow evolutions in the field that relate to the claimed invention; and (7) legitimate grounds
12 can be identified for the abandonment of prior applications.” *Id.* at 1155.
13

14
15 **B. Sonos’s Delay in Prosecution of the ’885 and ’996 Patents was Unreasonable
and Inexcusable Under the Totality of the Circumstances**

16 **1. Sonos Delayed Filing Claims Directed to Overlapping Speaker Groups
and Google Introduced its Multiroom Audio Products**
17

18 Sonos’s patents are unenforceable against Google because Sonos unreasonably delayed
19 prosecution of the asserted patents at the Patent Office and prejudiced Google by doing so. Sonos
20 waited until after Google (and others) had commercialized “multiroom audio” products to attempt
21 to patent the concept of overlapping speaker groups. Specifically, Sonos amended the specification
22 of the asserted patents in August 2019 to incorporate new matter in an effort to enable it to draft
23 claims covering those products. By surfacing the submarine patents years after Google and others
24 in the industry began using these technologies, Sonos unreasonably delayed and prejudiced
25 Google. There is no explanation for doing so besides Sonos’s purely commercial interests, but as
26 described above, “the applicant’s pecuniary interest in the patent cannot by itself make an otherwise
27 unexplained delay in prosecution reasonable.” *Reiffin*, 270 F. Supp. 2d at 1153.
28

1 The Supreme Court held a century ago that “unreasonable delay and neglect on the part of
 2 [a patent] applicant” can render a patent unenforceable. *Webster Elec. Co. v. Splitdorf Elec. Co.*,
 3 264 U.S. 463, 465-66 (1924). The patent claims at issue in *Webster* “were for the first time presented
 4 to the Patent Office, by an amendment to a divisional application eight years and four months after
 5 the filing of the original application.” *Id.* at 465. During this period, the patentee “stood by and
 6 awaited developments” in the market before pursuing its claims. *Id.* at 465. The Supreme Court
 7 found that an eight-year period was “an undue extension of the patent monopoly against private and
 8 public rights,” and the Court found that the patent was, therefore, unenforceable. *Id.* at 466.

10 In *Woodbridge v. United States*, the Supreme Court likewise held that the patent at issue was
 11 unenforceable due to a nine-year prosecution delay. *Woodbridge v. United States*, 263 U.S. 50
 12 (1923). The delay in *Woodbridge* was “for the admitted purpose of making the term of the
 13 monopoly square with the period when the commercial profit [from the patent] would be highest.”
 14 *Id.* at 56. The Supreme Court found that this “designed delay” improperly “postpone[ed] the time
 15 when the public could freely enjoy [the invention] for nearly 10 years.” *Id.*

17 Although the patent term at issue in *Webster* and *Woodbridge* was measured from the date
 18 of issuance of the patent, Sonos’s similar strategy to delay and await commercial developments so
 19 that it could impose new limitations on the public’s right to practice is inexcusable and
 20 unreasonable. *See Webster*, 264 U.S. at 456-66; *Woodbridge*, 263 U.S. at 56. Likewise, in *Hyatt*,
 21 the district court found that the patentee delayed presenting certain claims for examination for
 22 between 12 and 28 years after their priority applications. *Hyatt*, 998 F.3d at 1354. Even though the
 23 patentee in *Hyatt* disputed those years and claimed that the delay was actually between 7 and 19
 24 years, the Federal Circuit found that, under either set of years, “[t]he magnitude of Hyatt’s delay in
 25 presenting his claims for prosecution suffices to invoke prosecution laches.” *Id.* at 1367. Here,
 26 Sonos filed the provisional application from which the ’885 and ’966 patents claim priority on
 27
 28

1 September 12, 2006. TX0001 at 4; TX0003 at 4. Yet Sonos did not file the applications that issued
2 as the '885 and '966 patents until April 12, 2019—thirteen years later. TX0001 at 3; TX0003 at 3.

3 The Federal Circuit in *Hyatt* found that the patentee's patent specifications were "atypically
4 long and complex," spanning as many as 576 pages of text, which "hindered examiners' ability to
5 determine compliance with 35 U.S.C. § 112." *Hyatt*, 998 F.3d at 1353-54. Likewise, here, between
6 the initial filing of the provisional and the eventual filing of the '885 and '966 patents were myriad
7 other filings and applications resulting in "a very confusing priority chain," according to even
8 Sonos's own counsel. Trial Tr. 969:1-3 ("it's a confusing – it is, actually, a very confusing priority
9 chain. I've seen a lot, and it's confusing."). The face of the patents identify at least four intervening
10 patent applications. TX0001 at 3-4; TX0003 at 3-4. The faces of the patents also reveal that Sonos
11 attempted to and did bury the Patent Office and the patent examiner in over 70,000 pages of
12 materials submitted during prosecution of the two patents-in-suit. Trial Tr. 1430:24-1431:4;
13 TX0003 at 3-29; TX0001 at 3-21.

14 At the same time Sonos was filing its "confusing priority chain" of patent applications,
15
16 Google and other companies began to introduce next-generation smart speaker products into the
17 market. Sonos's witnesses testified that Google launched its "first multiroom audio product" in
18 "December of 2015." Trial Tr. 307:18-20 (Millington); *see also id.* 298:22-299:2
19 (Millington). Another company, Denon, made "a wireless multiroom system" in this
20 timeframe. *Id.* Despite Sonos's awareness of Google's and other companies' products entering the
21 speaker "multiroom audio" market (Trial Tr. 298:3-299:3), Sonos did not file its patent applications
22 attempting to cover overlapping speaker groups until April 2019. .

23 Critically, as discussed in Google's briefing on lack of written description, Sonos did not
24 add the new matter allegedly covering overlapping speaker groups to the specification of those
25 patent applications until August 2019. *See* Dkts. 712 at 1; 729 at 5, 7-10; 785 at 4, 11, 14; 788 at 1,
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7; *see also* TX0004 at 808. Sonos thus delayed its patent filings until well after Google and others had introduced and established their products in the market, and at the time they did so, there was no public disclosure or notice that Sonos would attempt to claim overlapping speaker groups as its invention. Indeed, the new matter Sonos added to the specification in August 2019 to purportedly allow it to claim “overlapping zone scenes” did not appear in any of the prior filings in its “confusing priority chain.” *See id.*

2. Sonos Delayed Prosecution of the Invention

Sonos delayed seeking patent protection for its alleged overlapping zone scenes invention until it eventually filed the ’885 and ’966 patents in April 2019. Between 2006 and 2019, Sonos nominally kept the prosecution chain “alive” by filing applications in 2007, 2013, and 2016. TX0001 at 3-4; TX0003 at 3-4. Sonos strategically delayed its prosecution of the alleged overlapping zone scene technology until well after Google began to offer and sell products in 2015 that Sonos believed it could draft claims to cover.

3. Sonos Belatedly Claimed “Overlapping Speaker Groups” And Expedited Prosecution of Those 2019 Applications

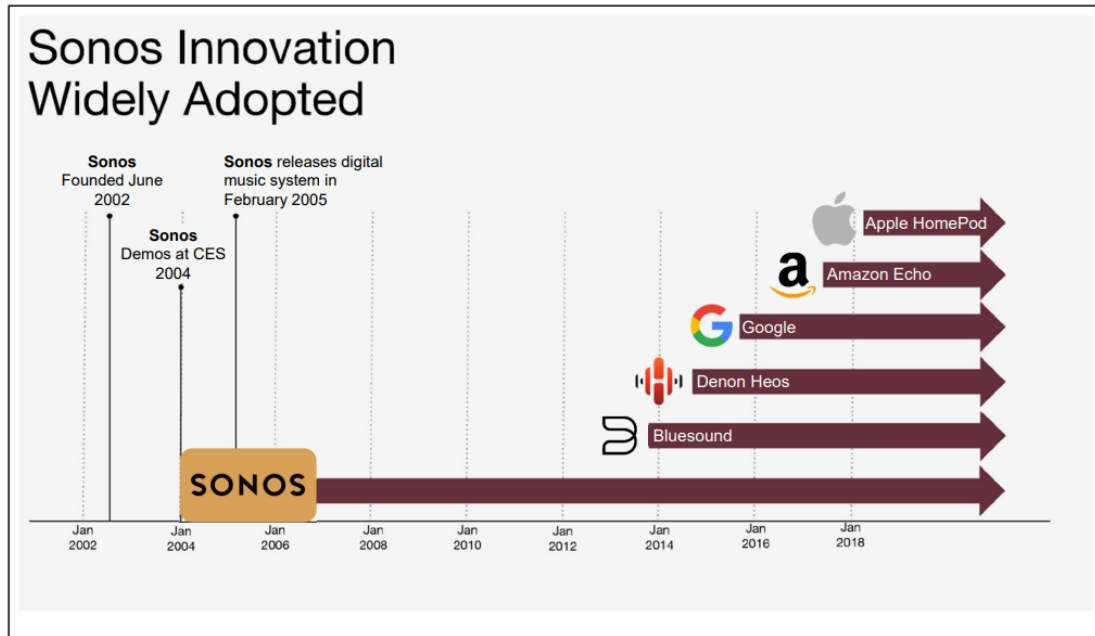
Having successfully delayed from 2006 through 2019, Sonos *only then* chose to expedite its prosecution of its patent applications for the ’885 and ’966 patents by requesting “Track One” prioritized examination. TX0004 at 4662; TX0006 at 1; *see also* <https://www.uspto.gov/patents/initiatives/usptos-prioritized-patent-examination-program> (“USPTO’s Track One prioritized examination will allow you to get a final disposition within about twelve months.”). This occurred well after Google and others introduced the technology into the market. The asserted patents issued in November 2019 and November 2020, and Sonos sued Google on each shortly thereafter. TX0001 at 3; TX0003 at 3; TX6130; TX6136.

1 **C. Sonos’s Patents are Unenforceable Under Prosecution Laches**

2 Sonos’s 13-year delay between its original September 2006 provisional application and its
3 April 2019 applications for the asserted patents was unreasonable. First, the prosecution of the
4 asserted speaker patents was not “typical of patents in that field.” *Reiffin*, 270 F. Supp. 2d at
5 1155. Sonos admitted that this was a “very confusing priority chain” compared to others, *supra*,
6 and the 13-year delay between the original filing and Sonos’s attempt to change the patent disclosure
7 by amending the specification was unique, excessive, and the amendment itself was highly
8 misleading and improper. *See* Dkts. 712, 729, 785, 788. Second, Sonos has provided no explanation
9 for the 13-year gap in the prosecution history, and Sonos took unusual steps at the PTO to first delay
10 the prosecution process and then, later, speed it up. *See Reiffin*, 270 F. Supp. 2d at 1155. Sonos
11 deluged the patent office in over 70,000 pages of “disclosures” across the two patents, *supra*, yet at
12 the same time requested “prioritized examination,” dramatically limiting the prosecution time for
13 the 2019 applications. Combined with Sonos’s belated and misleading specification amendment,
14 Sonos’s pattern of prosecution “created a perfect storm” to overwhelm the PTO. *See Hyatt* at
15 1368. Regardless, the overall delay between 2006 and 2019 is unreasonable, particularly given
16 Sonos’s attempt to “limit public awareness of [the] pending applications or the inventions [Sonos]
17 sought to patent over the course of the prosecution,” *Reiffin*, 270 F. Supp. 2d at 1155, by failing to
18 deploy the “overlapping zone scenes”-related specification amendments until August
19 2019. Because Sonos did not attempt to claim “overlapping zone scenes” until April 2019 and did
20 not offer specification support for those claims prior to August 2019, Sonos concealed the nature of
21 its alleged invention until well after Google and others had commercialized their products,
22 unreasonably delaying its prosecution and prejudicing Google. Indeed, Sonos’s “changes in []
23 prosecution of the application[s]” were designed to “coincide[] with or directly follow evolutions in
24 the field that relate to the claimed invention.” *Reiffin*, 270 F. Supp. 2d at 1155. Sonos unreasonably
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1 waited until August 2019 to change its patent specifications to attempt to claim Google’s 2015-era
2 products that included overlapping speaker groups—“directly follow[ing] evolutions in the
3 field.” *See id.* Even if Sonos were correct (and it is not) that Sonos’s 2006 provisional application
4 disclosed “overlapping zone scenes,” it would still constitute prosecution laches for Sonos to delay
5 filing claims covering that subject matter for 13 years—four years after Google began selling
6 products including overlapping speaker groups.
7

8 Sonos’s actions here are comparable to those found to result in unenforceability of the
9 asserted patents in *Symbol II*, 301 F. Supp. 2d 1147, 1155 (D. Nev. 2004), *aff’d* 422 F.3d 1378 (Fed.
10 Cir. 2005). Although in *Symbol II* the plaintiff delayed issuance of the patents for far longer—18-
11 29 years—the key finding by the court was that there were “intervening private and public rights”
12 established during the plaintiff’s (unexplained) delay, including “the use of products developed,
13 manufactured and sold by [Defendants], as well as by third-party products, patents and articles.” *Id.*
14 at 1157. It was these intervening rights that demonstrated the true prejudice caused by the plaintiff’s
15 delay in prosecution, and the same is true here. Sonos sat on its rights for 13 years, including four
16 years *after* Google commercialized its “multiroom audio” products to file claims on “overlapping
17 zone scenes.” Indeed, throughout trial Sonos touted its alleged early innovations in speaker
18 technology, arguing that it began nearly a decade before other companies like Apple, Amazon,
19 Google, Denon, and others:
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Dkt. 791-1 at 12 (Sonos opening demonstratives); TX7200; see also Trial Tr. 298:3-299:3. But this ignores that Sonos waited until *after* each of those companies deployed products to file the applications for the '885 and '996 patents in an attempt to claim “overlapping zone scenes” and add those related disclosures to the specification, highlighting the same “intervening private rights” issues that *Symbol II* recognized. 422 F.3d at 1386.

In *In re Bogese*, 303 F.3d 1362, (Fed. Cir. 2002), the Federal Circuit recognized the importance of the doctrine of prosecution laches when it affirmed it a basis for the PTO to reject an application’s claims. In *Bogese*, the patent examiner rejected the claims because the applicant had filed numerous consecutive patent applications over an eight-year period, each time without substantively amending any of the claims that had previously been rejected by the PTO, in order to postpone the issuance of the patent and extend its term. *Id.* at 1364-66. Although the plaintiff argued, as Sonos may here, that it was permitted to “maintain[] pendency of an application . . . while competitors’ products appear on the market in an effort to later draft and obtain the allowance of claims that read on the competitors’ products,” the Federal Circuit rejected this argument. *Id.* at 1369. The Federal Circuit held that proper attempts to “obtain new claims directed to inventions

1 that he or she believes are fully disclosed and supported in an earlier application,” are “easily
 2 distinguishable from appellant’s failure to further the prosecution of his application toward the
 3 issuance of any claims.” *Id.* So too here. First, Sonos’s claims directed to “overlapping zone
 4 scenes” were **not** disclosed and supported in an earlier application and therefore it was **not** proper
 5 to obtain new claims directed to that functionality. *See* Dkts. 712, 729, 785, 788. Second, even if
 6 those claims were proper, Sonos was required to “further the prosecution . . . toward the issuance”
 7 of new claims on the alleged invention without an unreasonable delay, but Sonos did not do so for
 8 13 years. *See Bogese*, 303 F.3d at 1369.

10 According to the trial record, the only explanation for Sonos’s prosecution strategy is
 11 deliberate delay. Even if technically permitted by the PTO’s procedures, Sonos’s actions were a
 12 conscious and egregious misuse of the patent system that is not permitted by law. The Federal
 13 Circuit in *Hyatt* held that the patentee’s “conduct—including his delay in presenting claims, his
 14 creation of an overwhelming, duplicative web of applications and claims, and his failure to
 15 cooperate with the PTO—was a clear abuse of the patent system, even if it did not literally violate
 16 regulations or statutory provisions.” *Id.* at 1369.

18 Likewise, Sonos’s conduct harmed the public interest by hiding what Sonos owns and what
 19 it does not. *See Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., Ltd.*, 535 U.S. 722, 730–31
 20 (2002) (“The patent laws ‘promote the Progress of Science and useful Arts’ by rewarding innovation
 21 with a temporary monopoly. U.S. Const., Art. I, § 8, cl. 8. The monopoly is a property right; and
 22 like any property right, its boundaries should be clear. . . . A patent holder should know what he
 23 owns, and the public should know what he does not.”).

25 **D. Google Suffered Prejudice Attributable to Sonos’s Delay**

26 “[P]rosecution laches’ requirement of an unreasonable and unexplained delay includes a
 27 finding of prejudice, as does any laches defense.” *Cancer Research*, 625 F.3d at 729. “[T]o establish
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1 prejudice an accused infringer must show evidence of intervening rights, *i.e.*, that either the accused
 2 infringer or others invested in, worked on, or used the claimed technology during the period of
 3 delay.” *Id.*

4 The evidence is clear that Google developed intervening rights during Sonos’s period of
 5 delay and was, therefore, prejudiced. Sonos unreasonably delayed when it filed the provisional
 6 application from which the ’885 and ’966 patents claim priority on September 12, 2006, but did not
 7 file the application that issued for the patents-in-suit until April 12, 2019—*nearly thirteen years*
 8 *later*. However, had Sonos prosecuted its applications diligently, it could have claimed its alleged
 9 invention much earlier. In doing so, Sonos prejudiced Google who, during this time of delay, began
 10 investing in its products by at least 2015 that were eventually accused in 2020 by Sonos. As Google
 11 was developing products and technology, Sonos was prosecuting the claims it would later
 12 assert. Such events must not be viewed as a coincidence, but must be viewed in the context of
 13 Sonos’s original plans: to prosecute its patents over a long period of time and keep them hidden
 14 until infringement by Google was engrained and widespread. The evidence at trial establishes that
 15 Google worked on, invested in, and used the claimed technology during the period of Sonos’s
 16 delay. *See, e.g.*, Trial Tr. 1517:24-1518:25 (Chan). Accordingly, Google requests this Court find
 17 that Google developed intervening rights and was, therefore, prejudiced by Sonos’s delay in
 18 prosecuting its patents.

19 **II. GOOGLE IS ENTITLED TO JUDGMENT IN ITS FAVOR ON ITS EQUITABLE**
 20 **ESTOPPEL AFFIRMATIVE DEFENSE**

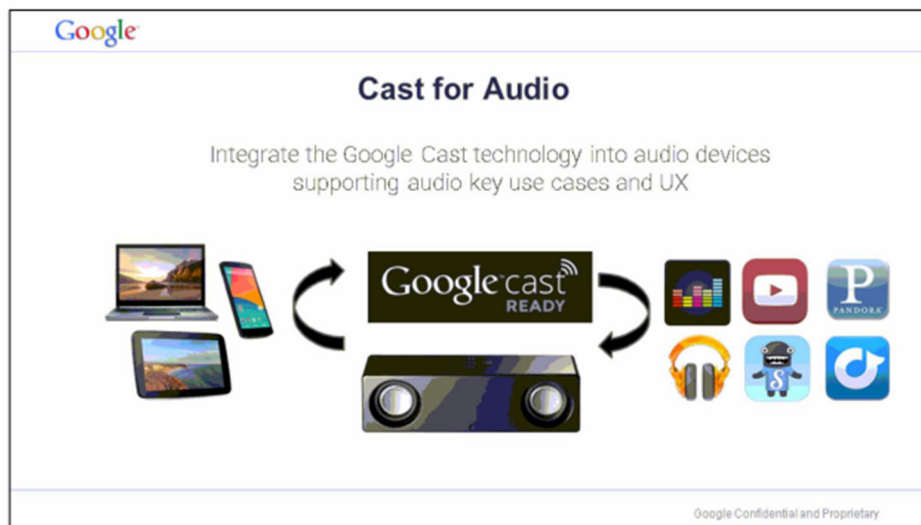
21 Equitable estoppel applies when a patentee represents to an alleged infringer, expressly *or*
 22 *implicitly*, that it will not enforce its patent rights. “Estoppel is an equitable defense to a charge of
 23 patent infringement and, if proven, may entirely bar an infringement suit.” *ABB Robotics, Inc. v.*
 24 *GMFanuc Robotics Corp.*, 52 F.3d 1062, 1063 (Fed. Cir. 1995). Three elements are key: (1)
 25 whether the patentee’s misleading conduct leads the alleged infringer to reasonably infer that the
 26 patentee does not intend to enforce the patent against him; (2) whether the alleged infringer relies
 27 on that conduct; and (3) whether the alleged infringer will be materially prejudiced if the
 28

1 infringement claim moves forward. *See id.* “The conduct may include specific statements, action,
2 inaction, or silence . . . if such silence is accompanied by some other factor indicating that the silence
3 was sufficiently misleading to amount to bad faith.” *Id.* at 1063-64.

4 **A. Google Disclosed Its Development of Multi-Zone Technology to Sonos in 2014**

5 In the summer of 2013, Sonos and Google began discussing a possible
6 collaboration between Google’s Google Play Music service and Sonos’s products. Trial Tr. 301:2-
7 302:21; TX0344, TX0347. During this time, the parties discussed how Google’s service could be
8 made available as a music service for Sonos users. Trial Tr. 303:1-304:9. Those discussions also
9 led, in the summer of 2014, to a meeting between Sonos and Google regarding Google’s Cast for
10 Audio program. Dkt. 755-1 (Shekel Depo. Designations) at 42:02-09. Google presented a
11 presentation at that meeting regarding the opportunity for Sonos to participate in the Cast for Audio
12 program. TX0125; Dkt. 755-1 at 42:04-09 and 77:20-22. The presentation was designated as
13 “Google Confidential and Proprietary.” *Id.* One of the attendees at the presentation was Tomer
14 Shekel, who was a product manager for the Cast for Audio program. Dkt. 755-1 at 14:02-013;
15 16:08-10.

16 At this meeting, Google first summarized for Sonos what it was trying to accomplish with
17 Cast for Audio:
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TX0125 at 3. The proliferation of cloud-based streaming music providers, such as Pandora and Spotify (pictured on the right), created a technological challenge for some audio device manufacturers, who were used to supporting music playback from traditional sources like radio broadcast or CDs. Some streaming companies also had challenges in trying to integrate their apps, which operated on smartphones, tablets, and laptops (pictured on the left), into the dozens of different types of speaker products on the market (pictured in the middle). Cast for Audio was designed to solve these problems by providing a simple, standardized platform for connecting the phones and tablets that controlled the streaming apps with the audio devices that played the music. By using Google Cast's software stack, the audio device manufacturer could easily, with a single software integration, make their speakers compatible with dozens of streaming apps that supported the Cast platform. *See also* Dkt. 755-1 at 29:12-24.

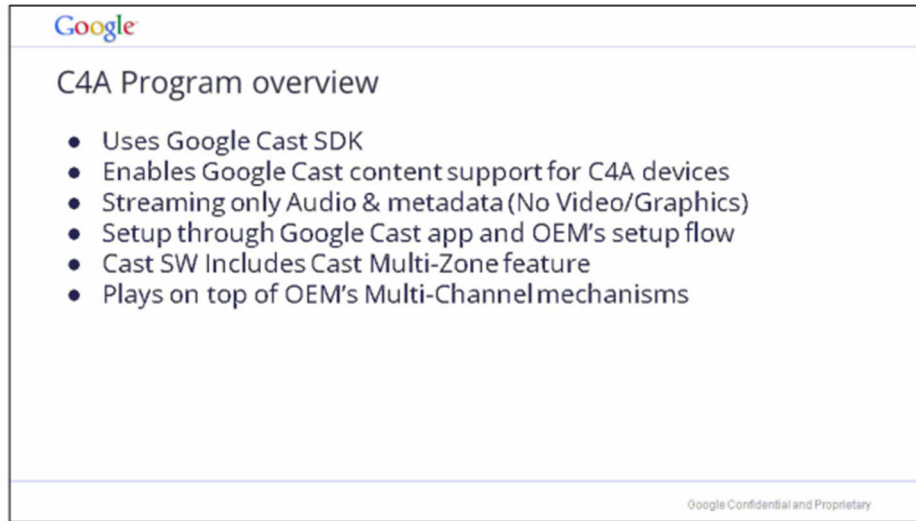
Google also explained for Sonos the main concepts for Cast for Audio:



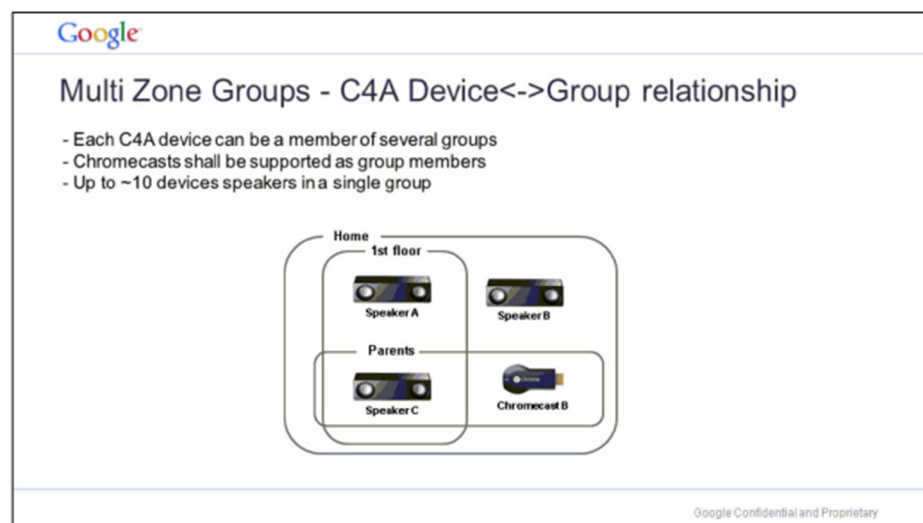
Google Cast is a multi-device technology that lets users send and control content like video and audio from a small computing device like a phone, tablet, or laptop to large rendering devices like a television, or speakers.

TX0125 at 4. Cast Senders (pictured on the bottom left) are smartphones, tablets, and laptops. Consumers use them to discover music content on streaming apps (pictured on the top in the cloud). Consumers can use those streaming apps to initiate and control audio playback on Cast supported audio devices, which are the Cast for Audio Receivers (pictured on the bottom right). Music then directly streams from the streaming services on the cloud to the speaker, via a Device Discovery Playback UX (pictured as the arrows between Cast Senders and Cast for Audio Receivers).

Google next provided an overview of the Cast for Audio program (also referred to as C4A), including how it worked and what the user experience would be like:



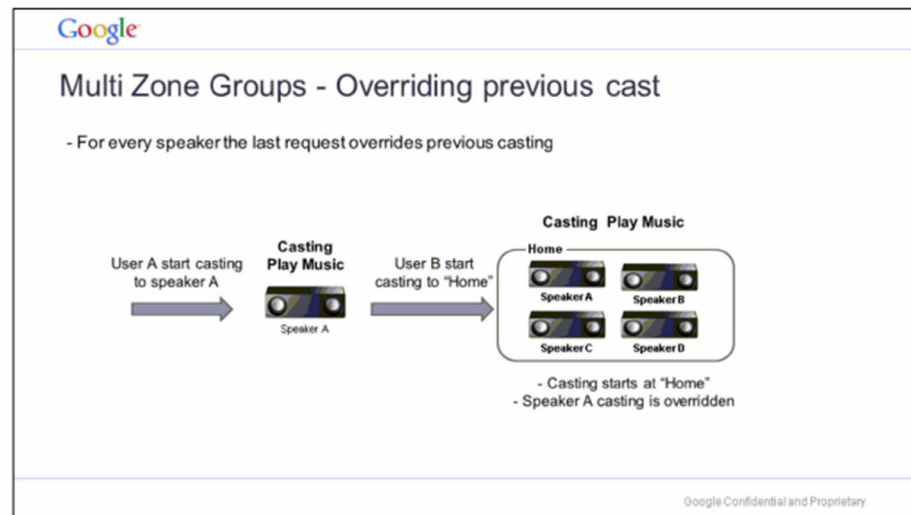
TX0125 at 5. That included an explanation that the Cast software would include a Cast Multi-Zone feature that Google was in the process of developing – *i.e.*, functionality to enable Cast-supported devices to play music on multiple speakers. *See also id.* at 6 (identifying “Multi-Zone features alignment and flows” as one of the presentation’s “Discussion points.”). Google’s presentation also included multiple slides providing details on Google’s Multi-Zone feature. *Id.* at 17-25. For example, Google explained the relationship between Cast devices and multi-zone groups:



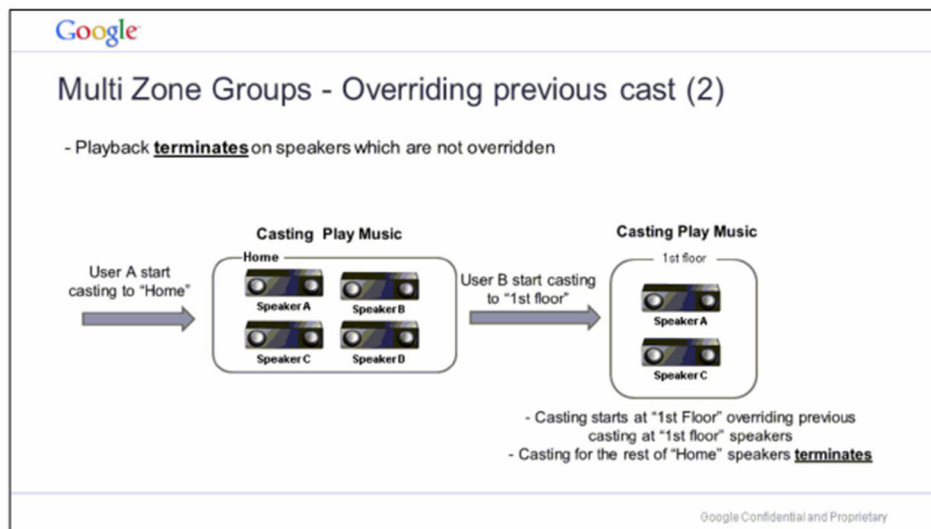
TX0125 at 18. Importantly, Google showed Sonos that as part of its multi-zone group technology, “[e]ach C4A device can be a member of several groups.” *Id.* That overlapping speaker grouping functionality is also depicted in the diagram, in which Speaker C is a member of three groups: the “1st floor” group, the “Parents” group, and the “Home” group. The presentation also disclosed that Google’s Chromecast devices would be able to join the overlapping Multi Zone Groups. *Id.* (“Chromecasts shall be supported as group members”). *See also* Dkt. 755-1 at 78:07-78:22.

The presentation also made clear that one of the innovative features of the Cast for Audio multi-zone solution was that it was contemplated to be cross-brand – that is, it would support multi-zone groups made up of speakers from different manufacturers. *See, e.g.*, TX0125 at 18. That was very different from other multi-zone solutions at the time – including Sonos – which generally only worked with audio devices that were all from the same manufacturer.

Finally, the presentation explained how Multi Zone Groups would handle playback on individual speakers when a user invoked a Multi Zone Group that that speaker was a member of:



TX0125 at 24.



TX0125 at 25. Significantly, under the Multi Zone Group technology described in the Cast for Audio presentation, a speaker that was playing music individually and was added to a group would continue that individual playback until the speaker group was invoked (at which point the request to play music to the group would override the previous cast):

Q. Could a user create a group of speakers while music is playing on those speakers?

MR. JUDAH: You're talking about the Cast for Audio time period?

MR. GROSBY: Yes. Same time period as this conversation we've been having.

THE WITNESS: So can you repeat that again, the question.

MR. GROSBY: Q. Could a user create a group of speakers while music was playing on those speakers?

THE WITNESS: For just creating the group, I'm assuming -- really, in fact, spec-wise, like, what I defined, yes, you could create the group. Regardless of the speaker playback status, you just create a group. So they're now a part of another group. But it does not matter, you know, if they are playing right now or not in that group or any other group, you know. But anyway, probably are not playing that group, because he just created it. So regardless of the playback status, you can create a group.

1 MR. GROSBY: Q. Would you say it's an important feature for the music playback to not be
2 disturbed while you set up new groups?

3 THE WITNESS: In my opinion, if by setting a group, you'll now be stopping the music a
4 person played, that would not be a great experience for that user.

5 Dkt. 755-1 at 98:13-99:16.

6 It is clear from the 2014 presentation that Google disclosed to Sonos its plans for the
7 implementation of Google's multizone speaker functionality, including (at that time) overlapping
8 speaker groups and continuing playback on an individual speaker when it was added to a speaker
9 group.
10

11 **B. Google Developed Its Own Products Beginning in 2015**

12 Google moved forward and entered into the wireless audio products space in 2015. *Id.* at
13 91:05-10; *see also* Trial Tr. 298:22-299:2, 307:18-20 (Millington); Trial Tr. 1201:18-1202:5
14 (Malackowski). In September 2015, Google released two new Chromecast devices. Trial Tr.
15 298:22-299:2, 307:18-20 (Millington). Google released its first smart speaker product, Google
16 Home, in November 2016 (Trial Tr. 1201:22-1202:2).
17

18 **C. Sonos Waited Until 2020 to Notify Google of the Existence of the Asserted**
19 **Patents and Google's Alleged Infringement of Them**

20 The first notice that Sonos provided to Google of the '966 patent was on September 28,
21 2020. Trial Tr. 1025:6-22 (Kwasizur); TX6130. Sonos's notice comprised an email attaching a
22 "courtesy copy" of a draft complaint alleging willful infringement of the '966 patent. *Id.*; TX6136;
23 Trial Tr. 1042:3-10. The '885 patent did not issue until two months later, on November 24,
24 2020. TX0003.

25 **D. Sonos's Conduct and Silence Was Misleading and Amounts to Bad Faith**

26 Sonos was silent about any alleged infringement by Google of inventions claiming
27 overlapping zone scenes for six years after Google first disclosed to Sonos, confidentially, its plans
28

1 for overlapping Multi Zone Groups in 2014, and for nearly five years after Google released its
2 multizone feature in its Chromecast products. This silence was misleading and amounts to bad
3 faith.

4 The Court should reject any argument by Sonos that it did not need to disclose its claimed
5 invention covering overlapping zone scenes until the patents issued. *See Wang Labs., Inc. v.*
6 *Mitsubishi Elects. Amer.*, 103 F.3d 1571, 1582 (Fed. Cir. 1997) (affirming a jury finding implied
7 license based on equitable estoppel even though the patent had not issued until *after* the conduct at
8 issue occurred). Sonos's tactical silence and delay in applying for the asserted patents only
9 underscores Sonos's misconduct. Sonos contends that it invented overlapping zone scenes in 2005,
10 and that the asserted patents are entitled to a priority date in 2006. Accordingly, Sonos cannot argue
11 that it did not know of its purported patent rights covering Google's Multi Zone Grouping
12 technology in 2014. Rather, the evidence demonstrates that Sonos waited until Google had not only
13 built and released its Multi Zone solution, but actually rolled it into multiple products over multiple
14 years, so that Sonos could study and more effectively draft claims that would read upon Google's
15 technology. If Sonos had a colorable claim on the invention, Sonos could have and should have
16 notified Google and immediately filed a continuation or a continuation-in-part, rather than sit
17 silently on the patent application for five years.

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20 **E. Google Relied on Sonos's Conduct to Reasonably Infer That Sonos Did Not**
21 **Intend to Enforce Any Patent Rights in Overlapping Zone Scenes Against**
22 **Google.**

23 Sonos's conduct and silence led Google to reasonably infer that Google owned any
24 intellectual property stemming from the development of the accused overlapping speaker group
25 technology or that Sonos did not intend to enforce any intellectual property rights with respect to
26 that technology. Sonos, thereby, and with the full knowledge of the material facts, intentionally
27 relinquished its right to bring an action based on the '885 and '996 patents, or intentionally acted
28 inconsistently with claiming such rights. Courts have found that silence by the patentee is

1 considered misleading action if accompanied by some other factor that amounts to bad faith. *ABB*,
 2 52 F.3d at 1064. For example, this district held in *Intel Corp. v. Tela Innovations, Inc.* that the
 3 patentee's silence constituted misconduct because it withheld key information from the alleged
 4 infringement about possible patent infringement while the two parties were engaged in an ongoing
 5 business and investment relationship. No. 3:18-CV-02848-WHO, 2018 WL 4859314, at *8 (N.D.
 6 Cal. Oct. 5, 2018). Here, a similar relationship existed between Sonos and Google. This silence
 7 allowed Google to assume the business risk associated with selling its product, including continuing
 8 to invest in and develop its allegedly infringing products between 2014 and 2020 (the date Sonos
 9 first noticed Google of the asserted patents and the alleged infringement). *See* Trial Tr. 1517:24-
 10 1518:25 (Chan) (describing the resources that go into Google's development of the accused
 11 products).

12 **F. Google Faces Prejudice If the Infringement Verdict Is Permitted to Stand**

13 If the jury's verdict on infringement is permitted to stand, Google will be severely prejudiced
 14 both financially by the damages assessed by the jury and reputationally. Google is further
 15 financially prejudiced because Sonos sat silently on its alleged intellectual property rights and
 16 waited while Google sunk investment into its products. Google, therefore, has established that
 17 Sonos should be equitably estopped from claiming patent infringement against Google.
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19 **III. CONCLUSION**

20 For the foregoing reasons, Google's motion for judgment in its favor on prosecution laches
 21 and equitable estoppel should be granted.
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